

1.0 INTRODUCTION

As specified in the New Jersey Department of Environmental Protection ("NJDEP"), Technical Requirements for Site Remediation (N.J.A.C. 7:26), this Preliminary Assessment/Site Investigation ("PA/SI") Report was prepared by Pennoni Associates Inc. ("Pennoni") to document environmental investigations relative to an approximately 42 acre proposed improvement area on the Aerohaven Park located along Kettle Run Road in Township of Evesham, Burlington County, New Jersey, referenced hereafter as the "subject property" (see Appendix A - Property Location Map). The proposed improvement area for the Aerohaven Park Site is depicted on an aerial photograph prepared by T&M Associates dated January 2001 and noted as "Scheme #3" (see Appendix B – Proposed Improvement Area). The purpose of these investigations is to supplement previous environmental investigations completed by Environmental Resolutions, Inc. ("ERI") as documented in their November 2000 *DRAFT* Preliminary Environmental Investigation Report and to complete a Site Investigation of the property which included soil and groundwater investigations. Also, included under this scope of work, baseline and supplemental investigations of potential airborne asbestos fibers from the closed asbestos landfill located south of Aerohaven Park as well as an assessment of asbestos contamination on the subject property. The subject property includes open space (primarily large expanses of sand), deteriorated asphalt runways, an access road and wooded areas located in the Township of Evesham, New Jersey (see Appendix C – General Property Plan). The property is currently owned by the Township of Evesham. This report details information obtained by Pennoni during an investigation completed through October 12, 2001. Pertinent information made available after October 12, 2001, which would change the conclusions of this report, will be forwarded upon receipt.

1.1 Background

The subject property includes open space (primarily large expanses of sand – see Appendix D, Photograph 1), deteriorated asphalt runways (see Appendix D, Photograph 2), an access road (see Appendix D, Photograph 4), and wooded areas located to the east of Kettle Run Road in the Township of Evesham, New Jersey. The Aerohaven property was previously owned by Owens-Corning Fiberglass. A utility airport was constructed at the site between 1959 and 1961 and was in use from 1961 until 1981. Between 1961 and 1972, the owners of the property accepted municipal debris and insulation product containing asbestos fibers to fill low areas on the property. The source of the asbestos-containing material was Owens-Corning's Berlin, New Jersey facility. In 1995, under the oversight of the EPA and the NJDEP, Owens-Corning consolidated the fill material into a new landfill structure and capped the landfill pursuant to an approved Closure Plan. Documentation in the files reviewed at the NJDEP indicated that approximately 62,000 cubic yards of asbestos-containing material, 103,258 cubic yards of borrow, and 4,676 cubic yards of debris were incorporated into the new landfill structure. The landfill cap included six inches of subgrade, a geocomposite clay cap, and 30 inches of compacted soil. The purpose of the cap was to reduce the surface water infiltration and to prevent exposure to the asbestos-containing material. Construction was completed in September 1995. The surface of the landfill was seeded after construction to prevent erosion. A perimeter fence was installed in October 1995 to prevent public access to the landfill area. See Appendix D, Photograph 3 for a view of the landfill from the subject property.

On August 13, 1998, Owens-Corning sold the northern portion of its property, approximately 211.4 acres, to the Township of Evesham. Owens-Corning retained ownership of the portion of the property with the landfill.

1.2 Objective

The objective of this PA/SI report is to identify potential areas of environmental concern for the property, and provide data that is comparable to NJDEP's cleanup criteria to determine if the areas of environmental concern require additional investigation. In addition, the report provides the findings from our Baseline and Supplemental Air Sampling and provides recommendations relevant to these findings.

6.0 FINDINGS

The following sections provide a description of the findings from the SI activities conducted to investigate the AOCs identified by Pennoni.

6.1 AOC-1: Underground Storage Tanks

A magnetometer survey was conducted to further assess the presence or absence of USTs on the subject site. No evidence of existing USTs was observed on the subject property.

To further assess the subsurface conditions relative to USTs, Pennoni conducted a soil boring program utilizing a Geoprobe® drill rig. During the soil boring installations, a PID was utilized to check for evidence of subsurface petroleum contamination. No elevated PID readings were measured above background readings and no soil discoloration or petroleum-like odors were observed. Based upon site observation, no soil sample analyses were performed relative to USTs.

6.2 AOC-2: Hulked Cars

Pennoni utilized a PID to field screen soils under the car hulks on the subject property. No elevated PID readings were measured and no noticeable evidence of soil contamination (i.e.- soil staining, petroleum-like odors, etc.) was observed.

6.3 AOC-3: Nuisance Dumping

Analytical results for bulk samples collected from the two (2) debris piles located onsite reported the presence of greater than 1% asbestos in the two (2) various siding material samples. The roofing material was determined not to be an asbestos-containing material (see Appendix J – IATL Bulk Sampling Certificates of Analysis). The small amounts of both materials was likely nuisance dumping not associated with historic landfilling activities by Owens-Corning.

6.4 AOC-4: Soil Samples Analyzed for Asbestos

The asbestos analysis of surface soil samples collected on the subject site indicates "no asbestos detected" (see Appendix L – IATL Soil Sampling Certificates of Analysis).

6.5 AOC-5: Potable Well

As previously stated, a potable well was discovered on the site by Pennoni

6.6 AOC-6: Septic Tank

The NJDEP labels abandoned septic tanks as AOCs that must be sampled regardless of the degree of observable (or non-observable) contamination. Following the discovery of the septic tank, Pennoni collected one (1) soil sample outside of the tank (SB-5) and one (1) soil sample within the tank (SB-6) in accordance the NJDEP *"Technical Requirements for Site Remediation"*. The soil sample within the tank was collected at a depth of 2-feet below the surface of the soil in the tank (or 7 feet below exterior ground surface grade).

The soil sample outside of the tank was collected at a depth of 14-feet bgs. The soil samples were submitted to STL for TPH and VO+10 analyses. TPH was reported as "ND" or not detected at or above the method detection limit of 25 parts per million (ppm). Laboratory VO+10 results were all reported as "ND" at the applicable method detection limits (see Appendix O – Summary Table and Soil Sampling Analytical).

6.7 Airborne Asbestos

Results from the August 30, 2001 baseline air sampling conducted at the site reported no asbestos detected. Similar results (no asbestos detected) were reported during the supplemental baseline asbestos air sampling activities.

6.8 General Investigations

6.8.1 Groundwater Evaluation

As described in Section 4.2, Pennoni utilized TGMPs to collect groundwater samples on the subject site and to establish a groundwater flow direction. Four (4) TGMPs were installed in various locations on the site on September 12, 2001 and September 13, 2001 in a manner consistent with the NJDEP *Alternate Groundwater Sampling Technologies Guide* (July 1994). The TGMPs were installed to a depth of 24.5 feet bgs. The depth to water in the TGMPs ranged from 17.5 feet bgs, to 22.75 feet bgs. The TGMPs were surveyed on the morning of September 17, 2001 in order to determine elevations of the water levels measured in each TGMP. See Appendix P, Groundwater Contour Map, for the locations of each TGMP along with groundwater contours and flow direction.

On September 14, 2001, one (1) groundwater sample was collected from each TGMP and submitted to STL for VO+10, Nitrate, Radium-226, and Radium-228 analyses. Groundwater sample results reported no exceedances of the NJDEP Class II Aquifer Groundwater Quality Criteria (see Appendix Q – Summary Table and Groundwater Sampling Analytical). NOTE: Laboratory results for radium-226 and radium-228 are pending upon the printing of this PA/SI Report. Results for these parameters will be forwarded to Evesham Township under a separate SI Addendum Report.

6.8.2 Soil Investigations

A total of nine (9) soil borings (excluding the septic tank evaluation borings) were advanced on the subject property between September 12, 2001, and September 13, 2001 via tractor mounted Geoprobe®. The depth of the borings ranged from 12-feet bgs to 20-feet bgs. The soils at the site consist of fine to medium grained, poorly graded sand. No evidence of petroleum-like contamination was observed during the soil boring installations. Since no evidence of petroleum-like contamination was observed in the soil borings, only two (2) soil samples were collected for laboratory analysis (see Appendix N – Soil Sample Location Plan, Concrete Pad).

Since no evidence of subsurface petroleum-like contamination was encountered, no additional soil investigations relative to petroleum discharges are recommended.

7.0 CONCLUSIONS/RECOMMENDATIONS

Pennoni has performed a PA/SI in conformance with the scope and limitations of N.J.A.C. 7:26 for the proposed Aerohaven Park, an approximately 42 acre proposed improvement area located along Kettle Run Road in Township of Evesham, Burlington County, New Jersey. Additionally, Pennoni conducted baseline and supplemental investigations of potential airborne asbestos fibers from the closed asbestos landfill located south of Aerohaven Park as well as an assessment of asbestos contamination on the subject property. Based upon the property conditions observed and the information obtained, Pennoni recommends the following:

- **AOC-1: Underground Storage Tanks** - Pennoni recommends verification from the NJDEP be obtained to confirm that there are no "open" cases relative to UST closures on the subject property.
- **AOC-2: Hulked Cars** - Pennoni recommends that the car remnants be properly transported and disposed of in accordance with applicable local and state solid waste regulations.
- **AOC-3: Nuisance Dumping** - Pennoni recommends that the asbestos-containing siding material be properly containerized, transported, and disposed of in accordance with applicable local, state, and federal regulations.
- **AOC-4: Soil Samples Analyzed for Asbestos** – While our investigations did not uncover evidence of remaining residual buried asbestos on site, Pennoni recommends that asbestos air monitoring and visual inspection be conducted by a properly trained professional during any future site development/site grading activities. During the site development/site grading activities, the soil should be carefully inspected for the presence of suspect ACM. If suspect ACM and associated contaminated soil is observed, the excavation should be stopped and the suspect ACM/contaminated soil handled in one of two ways:
 1. Manually removed by a licensed asbestos worker and placed into a properly labeled container that is lined with double 6-mil polyethylene.
 2. Excavated and placed mechanically into a controlled staging area where the material can be secured and kept wet for later handling by a licensed asbestos worker. This staging area should consist of a lined dumpster with a complete tarp cover.
- **AOC-5: Potable Well** - Pennoni recommends that the well be properly abandoned in accordance with local, state and federal regulations.
- **AOC-6: Septic Tank** - Pennoni recommends that the septic tank should be properly closed in accordance with local, state and federal regulations.
- **AOC-7: Airborne Asbestos** – See recommendations for AOC-4 above.

8.0 REFERENCES

The following documents, publications, maps, etc. were used as source materials for this PA:

- N.J.A.C. 7:26, Technical Requirements for Site Remediation.
- Clementon, NJ, USGS, 7.5 minute topographic quadrangle, photorevised 1981.
- Aerial Viewpoint, Aerial Photographs, 1940, 1951 and 1961.
- Burlington County Land Use Department, Aerial Photographs, 1965, 1970, 1975, 1980, 1985, and 1995.
- TM, Aerial Photograph, January 2001.
- Draft Preliminary Environmental Investigation Report - Proposed Aerohaven Park, prepared by Environmental Resolutions, Inc., dated November 2000.
- InfoMap Environmental FirstSearch Report, dated August 10, 2001.
- Soil Survey of Burlington County New Jersey, USDA- Soil Conservation Service, 1971.
- Bedrock Geologic Map of Central and Southern New Jersey, USGS, 1998.

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